

SURGICAL PROGRESS.

I. Closure of Traumatic Defects in the Skull. A. STIBDA, of Halle, reported the method of treatment in complicated fractures of the skull and in cranial defects following injury, as employed in the surgical clinic of von Bramann. They aim to close the defect in the skull at as early a date, and as complete as possible, because a large defect is in every sense of the word a *locus minoris resistentiæ*. He reported the cases of injuries of the skull from April 1, 1897, to April 1, 1904. In thirty-three of forty-eight cases the particles of bone removed during the exposure of the fracture, or portions of the external table from the immediate vicinity, were implanted. All of these cases showed an exceedingly favorable result. Ten had no symptoms whatsoever; three complained of occasional headache; one suffered from vertigo, and the last case was that of a paralytic patient. Five patients, in whom it was impossible to replace all of the skull, suffered from disturbances. These consisted of headache, spots before the eyes, tinnitus, attacks of vertigo, etc. Of five patients, in whom sterilized bone chips were implanted, eight to ten days after the injury, four had symptoms, such as headache and occasional attacks of vertigo. Of eight cases treated through osteoplastic resection of the skull to cover the defect, six were according to the method of Müller-Koenig, and one to that of Scydel (taking a portion of the cortex of the tibia to cover the defect.) One of these cases suffered from epilepsy; five of the remainder had absolutely no symptoms. In two of these cases an osteoplastic operation had been carried out on account of an existing epilepsy, and there had been no recurrence after a period of four and a half and one and a half years respectively.

Stieda believes that an effort should be made, as soon as possible after the injury, to close the traumatic defect by bone, according to one of two methods: *first*, primary implantation and closure of scalp wound, if the area is aseptic, and can be kept so; *second*, if the wound is healed, he recommends excision of the scar, an osteoplastic operation according to Müller-Koenig, with skin, periosteum, and bone flap, or periosteum and bone flap alone, before an epileptiform or spasmophilic change in the brain has taken place.

FRIEDRICH, of Greifswald, laid stress upon the fact that such a large percentage of cases of genuine epilepsy followed injury, although he admitted that in a great number of cases in which evidences of injury could be found after shaving the head, it was doubtful whether they had anything to do with the epilepsy. He emphasized the fact that the majority of writers now believe that the primary irritation for the epileptic attack is to be found in the cortex. This is the only way in which one can explain why the influence of operation is such a beneficial one even in cases of genuine epilepsy. He brought out the fact, also, that it was well recognized that epileptic conditions, which were primarily due to injury, can pass over into those of genuine epilepsy, and for that reason a large percentage of cases of genuine epilepsy were primarily of traumatic origin. Of course, one must take into consideration that in many cases there was a predisposition on the part of the brain to the development of the epilepsy, as occurs especially through neuropathic heredity. He would like to see every case of genuine epilepsy investigated as to its traumatic origin, and a careful record kept of the symptoms, aura, condition of the patient in the interval, and the subjective sensations, in order to ascertain, as near as possible, from which area of the cortex the attack has originated. Such information is of great value from an operative stand-point. He would not advise operating on every case of genuine epilepsy, but he believes that here and there painstaking observation will find a case among

even these patients whose history and symptoms form an indication for operative interference.

As regards the technique, he has adopted the suggestion of Kocher, to make a large trephine opening and excise the dura. He has never drained the ventricles, and his trephine opening is usually larger than that of Kocher. If the symptoms lead him to suspect a spot in the skull in which there had been an injury, he, of course, trephined at this place, otherwise his trephine opening was always placed at the posterior end of the right frontal convolutions. Of the eleven cases which he operated upon, three are of special interest. In one case the clinical picture was that of a very severe epilepsy accompanied by idiocy. This patient had never had any attacks again, and his psychical condition was almost incredibly improved. The epileptic condition had existed thirteen years before the operation. The second patient has so markedly improved that he has been able to engage in an occupation in which there is great mental strain, and a third patient has been able to pursue a scientific career with success. Even three of the most discouraging cases of genuine epilepsy, with psychical changes, such as idiocy, have been influenced, so that in two of the cases the old clinical picture did not recur for months after the operation. A third case remained free from attacks for one year, but there was an unfavorable change in the psychical condition. The remainder of the cases are reported in detail in the original article.

H. KÜMMELL, of Hamburg, in the discussion stated that his permanent results were not so favorable as those of Friedrich. Shortly after the operation the condition was very encouraging. The attacks ceased for almost a year. In only one case (and that was a seven-year-old boy) was there complete recovery.—*Proceedings of the German Surgical Congress, 1905.*

II. The Operative Treatment of Purulent Meningitis. By Dr. H. KÜMMELL, of Hamburg. This disease has been subjected